Annual Author Index: 1997

ARNAVUT, Z. 292 ATKINSON, M. P. 598

BASTEN, T. 499
BERRY, A. 479
BJÖRKMAN, M. 208
BLACK, J. P. 499
BOLOGNESI, T. 259
BOZANIS, P. 22
BUNTON, S. 76
BURKE, E. 565

CAHILL, V. 463, 513
CAMINER, D. T. 585
CAO, J. 43
CHAN, E. 43
CHAN, F. T. 194
CHANDY, K. M. 465
CHASE, C. M. 489
CHAUDHARY, V. 322
CHAUDHURI, P. 200
CHEN, T. Y. 194
CIERNIAK, M. 356
CLEARY, J. G. 67
COCHRANE, P. 1

COLOMB, R. M. 235

CRAWLEY, S. 479

DAHLGREN, F. 208 DAOXU, C. 43 DE FERREIRA REZENDE, F. 245 DEARDEN, A. M. 167 DELIS, A. 183

EVANS, D. G. 617

FEIJS, L. M. G. 572 FISONE, A. 555 FORTES, J. A. B. 302 FRANTI, P. 547 FREY, B. J. 157

GREEN, P. R. 12

HÄRDER, T. 245 HARRIS, E. P. 416 HARRISON, M. D. 167 HELFGOTT, H. 137 HIERONS, R. M. 220 HINTON, G. E. 157 HOWARD, P. G. 146

JACKSON, K. 565 Ju. J. 322

KAUKORANTA, T. 547 KILGORE, R. B. 489 KINGSTON, J. H. 565 KITSIOS, N. 22 KIVIJÄRVI, J. 547 KLEIN, S. T. 117 KULKARNI, D. 373 KUMAR, M. 301 KUNZ, T. 499

LAU, S. -W. 529 LEE, C.-H. 43 LEE, H.-J. 302 LEE, S.-Y. 30 LEONG, H. V. 401 LEVIET, Q. 183 LI, W. 356 LUI, J. C. S. 529

MADRIA, S. K. 630
MAGLIVERUS, S. 292
MAK, I. K. 194
MAKRIS, C. 22
MCKINLEY, K. S. 340
MEMON, N. 127
MICKLE, M. H. 457
MILOSEVIC, Z. 479
MOFFAT, A. 65
MONTRUCCHIO, B. 555
MONTUSCHI, P. 555
MORRIS, D. 617
MÜLLER, O. 640

NAIK, K. 441 NEVALAINEN, O. 547 NEVILL-MANNING, C. G. 103 NICOLAU, A. 311 NIXON, P. 463, 513 NOVACK, S. 311

PAN, Y. 435 PATNAIK, L. M. 301 PATRICK, D. G. 12

RABHI, F. 463, 513 RAKOTONIRAINY, A. 479 RAMAMOHANARAO, K. 416 RENIERS, M. A. 572 RIFKIN, A. 465

SCHOFIELD, S. 617 SHEN, S. M. 194 SHENE, C. -K. 541 SI, A. 401 SINGHAI, S. 340 SINHAROY, B. 388 SJØBERG, D. I. K. 598 SLIND, K. 640 STENSTRÖM, P. 208 STORER, J. A. 137 STUMM, M. 373

SANNA, A. 555

ANNUAL AUTHOR INDEX: 1997

TANG, C. 278
TANGNEY, B. 513
TAYLOR, D. J. 499
TEAHAN, W. J. 67
TRAHAN, J. L. 435
TSAI, W.-J. 30
USHIJIMA, K. 278

VAIDYANATHAN, R. 435 WEARE, R. 565 WELLAND, R. 598 WITTEN, I. H. 103 Wu, X. 50, 127

XIANG, L. 278

YOKOO, H. 94 YORK, T. A. 12

ZAKI, M. J. 356 ZIELINSKI, J. 245

Annual Subject Index: 1997

Access structures

data organization Skip-List, Binary B-Tree 183

Algorithm

compile-time scheduling, generation of loops 356 computing the city block distance transform, reconfigurable meshes 435

CSG scenes, comparison with ray caster, reducing computational complexity 555

distributed, bridge-connected components, connected undirected graph 200

enumeration of words and binary trees 278

intersection query problems 22

lexical permutation sorting, LPSA, BWT 292

parametrized loop fusion algorithm, improving

parallelism and cache locality 340

caching, simulation model 401

genetic memetic, automated university timetabling 565 genetic, large-scale clustering problems, comparison 547 joins, optimal clustering of relations 416

recovery and concurrency control, nested transactions 630

STL rotation, complexity analysis 541

Application systems

development of software constraints 598

Architecture

description language, open distributed systems 479 hierarchical multimedia storage server, video object replacement algorithms 529 tools for automatic checking, software constraints 598

Bayesian

network source model, source coding, an application 157 Behavioural models

validation of computer systems, MOOSE 617

Rinary trees

Binary B-Tree, self-adjusting access structures, data organization 183

grammar-oriented enumeration 278

Block matching

lossless image compression 137

Bridge-connected components

optimal distributed algorithm, connected undirected graph 200

Business computing

history, LEO 585

C

multiprocessor environments for UNIX clusters 12

Caching

air-storage and memory cache 401

Clustering

problems, genetic algorithms, comparison 547

COMA

reducing read-miss penalty 208

Compression

BWT, relationship to LPSA 292

data, sort-based context similarity measure 94

lossless, bi-level image, block matching 137

lossless, bi-level images 146

lossless, editorial for special issue 65

lossless, image, new international standard 127

lossless, improvements for PPM variants, PPM * 76

lossless, PPM, unbounded length contexts, PPM* 67

optimal algorithm, efficient optimal recompression 117

SEQUITUR, identification of hierarchical structure 103

source coding, Bayesian network source model 157

Computer systems

analogy with electrical circuits, executing programs 457

validation of behavioural models, MOOSE,

hardware/software 617

Constraints

software, development for large application systems, usefulness 598

Data

data alignment, affine nested loops 302

partitioning, optimal clustering of relations 416

Databases

air-storage management 401

Debugging

distributed applications, Poet, XPVM 499

Disk array

multi-partition RAID 30

Distributed objects

internconnection, Internet 465

Distributed programming

persistent programming, languages, object orientation

513

distributed programs, debugging, Poet, XPVM 499

distributed programs, testing, racing messages 489

Distributed systems

building, editorial 463

semantic model, architecture desciption language 479

FDDI-M

protocol, timing properties 43

Finite-state machine

invertibility, state identification techniques 220

Formal specification

expressive flexibility, constraint-oriented notation 259

Frameworks

Markov, analogy between electrical circuits and computer

systems 457

Fuzzy matching techniques

hybrid interpretation mechanism 50

Grammar

binary trees, properties 278

ANNUAL SUBJECT INDEX: 1997

Heterogeneity

semantic, federating databases 235

Hierarchical structure

identification of by SEQUITUR, data compression 103

Higher order logic

Isabelle, survey and comparison of methods for partiality

Hybrid interpretation

mechanism, fuzzy matching techniques 50

Identifiers

assigment of, nested transactions 245

Image

bi-level, compression 146

JPEG, lossless compression, international standard 127

lossless compression, block matching 137

Induction

hybrid interpretation mechanism 50

Internet

internconnection of applications, distributed objects 465

Interoperation

semantic heterogeneity, federating databases 235

Intersection

query problems 22

Invertibility

state identification techniques, finite-state machine 220

Languages

functional programming, Landin-style stream I/O 572

LEO

business computing 585

Loops

affine nested, partitioning and data alignment 302

automatic, parallelization, editorial 301

linear loop transformation framework, parallel

applications 373

loop fusion problem, optimal algorithm 340

nested, partitioning, non-uniform dependences 322

parallel, scheduling for network of workstations 356

resource-directed pipelining, parallelism 311

transformation theory, optimization methods for

multiprocessor systems 388

Memory

case memory systems case-based reasoning 167

Meshes

reconfigurable, computing the city block distance

transform 435

Messages

message delivery ordering, distributed systems 489

Multiprocessors

OCCAM- and C-based multiprocessor environments for

UNIX clusters 12

shared memory, transformation frameworks 373

Multithreading

processor, compiler optimization methods, loop

transformation 388

Networks

telecommunications 1

Notation

constraint-oriented, expressive flexibility 259

Objects

object orientation, languages, distributed applications,

distribution and persistence 513

constructive solid geometry, reducing computational

complexity 555

distributed, internconnection, Internet 465

OCCAM

multiprocessor environments for UNIX clusters 12

Optical fibre

telecommunications 1

Parallelism

parallel programs, UNIX workstations, multiprocessor

environments 12

cache locality, parametrized loop fusion algorithm 340

distributed systems, editorial 463

nested loop partitioning, non-uniform dependences 322

parallel applications, performance inprovement, program transformation frameworks 373

resource-directed loop pipelining 311

scheduling parallel loops for network of workstations 356

Parallelization

automatic loop parallelization, editorial 301

Partial functions

survey and comparison of methods in a logic of total

functions 640

Partitioning

affine nested loops 302

data, optimal clustering of relations 416

of nested loops, methods 322

Pattern matching

text image compression 146

Permutation

transmission, LPSA and BWT 292

PPM

PPM*, improvements for PPM variants 76

PPM*, unbounded length contexts 67

Prediction

techniques, new international standard on lossless

compression of images 127

Processor

multithreading, compiler optimization methods, loop

transformation 388

Programming

functional, languages, Landin-style stream I/O 572

ANNUAL SUBJECT INDEX: 1997

Race sets

detection, on-line algorithm 489

RAID

multi-partition, organization, performance 30

Random testing

optimally refined proportional sampling strategy 194

Read-miss penalty

flat COMA protocols 208

Reasoning

case-based, case memory systems 167

Recompression

optimal algorithm 117

Rotation

STL algorithms, complexity analysis 541

Round trip delay

service providers, communication protocols 441

Sampling

optimally refined proportional sampling strategy, random

testing 194

Service providers

communication protocols, designing test architectures

441

Skip-List

self-adjusting access structures, data organization 183

Sorting

improvements to context sorting, data compression 94

Source coding

Bayesian network source model 157

Specification

LOTOS, Petri nets, constraint-oriented notation 259

Storage

storage efficiency, multi-partition RAID 30

architectures, hierarchical multimedia storage server,

video-on-demand 529

Synchronous messages

FDDI-M protocol, guaranteeing deadlines 43

System design

semantic heterogeneity, federating databases 235

Telecommunications

optical fibre 1

Timetablng

in universities, creating a standard 565

Transactions

nested, assignment of identifiers 245

nested, concurrency control, recovery algorithms 630

Transformation

transform, city block distance, reconfigurable meshes 435

frameworks, performance inprovement of parallel

applications 373

Transmission

lossy, service providers, communication protocols 441

UNIX

parallel programs, multiprocessor environments 12

Z notation

case memory systems 167

Ziv-Lempel

improvements by context sorting 94